

Amendments to the Claims:

The following (next page) Listing of Claims will replace all prior versions, and listings, of claims in the application.

- 1 1. (Currently Amended) A method of providing a checkpoint/restart facility
2 across a plurality of plurality of computer systems, wherein:
3 the plurality of computer systems comprises:
4 a first computer system executing a first program, and
5 a second computer system containing a disk system and
6 executing a second program;
7 the first computer system and the second computer system are
8 heterogeneous computer systems;
9 said method comprising:
10 A) checkpointing a current status of the first program resulting in a
11 first set of checkpoint status information;
12 B) transmitting a first checkpoint request that includes the first set of
13 checkpoint status information from the first program over a
14 first session to the second program;
15 C) checkpointing the second program resulting in a second set of
16 checkpoint status information in response to receiving the first
17 checkpoint request;
18 D) writing the first set of checkpoint status information and the
19 second set of checkpoint status information to a first
20 checkpoint file on the disk system; and
21 E) transmitting a first checkpoint response from the second program
22 over the first session to the first program after the writing in
23 step (D) is complete.;
24 F) checkpointing the first program resulting in a third set of
25 checkpoint status information;
26 G) transmitting a second checkpoint request that includes the third set
27 of checkpoint status information from the first program over
28 the first session to the second program;
29 H) checkpointing the second program resulting in a fourth set of
30 checkpoint status information in response to receiving the first
31 checkpoint request transmitted in step (G);
32 I) writing the third set of checkpoint status information and the
33 fourth set of checkpoint status information to a second
34 checkpoint file on the disk system;

35 J) transmitting a second checkpoint response from the second
36 program over the first session to the first program after the
37 writing in step (I) is complete;
38 K) transmitting a first rollback request from the first program over the
39 first session to the second program;
40 L) reading the third set of checkpoint status information and the
41 fourth set of checkpoint status information from the second
42 checkpoint file in response to receiving the first rollback
43 request transmitted in step (K);
44 M) rolling back the second program utilizing the fourth set of
45 checkpoint status information read in step (L);
46 N) transmitting a first rollback response from the second program
47 over the first session to the first program that includes the third
48 set of checkpoint status information read in step (L); and
49 O) rolling back the first program utilizing the third set of checkpoint
50 status information in response to receiving the first rollback
51 response in step (N).

1 2. (Cancelled)

1 3. (Cancelled)

1 4. (Currently Amended) The method in claim 2-1 wherein:
2 the first checkpoint file and the second checkpoint file are a same file.

1 5. (Cancelled)

1 6. (Currently Amended) The method in claim 1 which further comprises:

2 FP) transmitting a ~~second~~third checkpoint request that includes the

3 first set of checkpoint status information from the first program

4 over a second session to a third program executing in a third

5 computer system;

6 GQ) checkpointing the third program resulting in a ~~fourth-fifth~~ set of

7 checkpoint status information in response to receiving the

8 ~~second~~third checkpoint request;

9 HR) writing the first set of checkpoint status information and the

10 ~~fourth-fifth~~ set of checkpoint status information to a ~~second~~

11 third checkpoint file; and

12 IS) transmitting a ~~second~~third checkpoint response from the third

13 program over the second session to the first program after the

14 writing in step (HR) is complete.

1 7. (Cancelled)

1 8. (Cancelled)

1 9. (Original) The method in claim 1 wherein:

2 there are plurality of sessions open between the first program and the
3 second program for accessing a corresponding plurality of files
4 by the second program; and
5 the checkpointing in step (C) flushes all of the plurality of files and
6 includes checkpoint information for all of the plurality of files
7 in the second set of checkpoint information.

1 10. (Cancelled)

1 11. (Cancelled)

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1 12. (Cancelled)

1 13. (Cancelled)

1 14. (Cancelled)

1 15. (Cancelled)

1 16. (Cancelled)

1 17. (Cancelled)

1 18. (Cancelled)

1 19. (Cancelled)

1 20. (Cancelled)